GOVERNMENT OF INDIA
SCIENCE AND TECHNOLOGY
LOK SABHA

UNSTARRED QUESTION NO:1839
ANSWERED ON:09.12.2015
Scientific Research and Development
Ahmed Shri Sultan ;Bhamre Dr. Subhash Ramrao;Dhruvanarayana Shri Rangaswamy;Jadhav Shri Sanjay Haribhau;Jayadevan Shri C. N.;Kothapalli Smt. Geetha;Manjhi Shri Hari;Nagar Shri Rodmal;Paraste Shri Dalpat Singh;Parthipan Shri R.;Sampath Shri Anirudhan;Udhayakumar Shri M.;Vellaigounder Shri Elumalai

Will the Minister of SCIENCE AND TECHNOLOGY be pleased to state:

(a) whether the pace and standard of basic and applied research in the laboratories/ organisations/institutes is satisfactory and if so, the details thereof and if not, the reasons therefor;

(b) whether various academicians/ organistions including Indian Science Congreess have expressed their concern about dismal state of scientific research in the country and inadequate funds allocation therefor;

(c) if so, the details thereof and the steps taken by the Government to improve the situation and increase in the budgetary allocations for purposeful scientific research;

(d) whether the Governemnt has directed the Council of Scientific and Industrieal Research (CSIR) and other organisation involved in scientific research to generate their own funds and to start self financing projects, if so, the details thereof;
and

(e) the response of these organistions thereto along with its likely impact on various government research schemes and programmes?

Answer

MINISTER OF STATE IN THE MINISTRY OF SCIENCE AND TECHNOLOGY AND MINISTER OF STATE IN THE MINISTRY OF EARTH SCIENCES
(SHRI.Y. S. CHOWDARY)

(a) Yes, Madam. The pace and standard of basic and applied research in the laboratories/ organizations/institutes under the Ministry of Science and Technology are satisfactory.

In the context of basic research, scientists are publishing in leading international journals in ever increasing numbers. In certain areas like nano science and technology, materials science, chemical sciences, life sciences and biotechnology, many institutions under the Ministry of Science and Technology have achieved formidable national and international standing. The institutions under the Ministry are important partners in prestigious international projects namely, A Large Ion Collider Experiment (ALICE) at LHC, Geneva, Facility for Antiproton and Ion Research (FAIR) at Darmstadt, Germany, Thirty Metre Telescope in Hawaii and so on. The Indian Institute of Astrophysics (IIA), Bengaluru under the Department of Science and Technology (DST) led the construction of the Ultraviolet Imaging Telescope (UVIT) which formed an important payload of the ASTROSAT Mission launched recently by ISRO.

On the applied side, significant technological interventions have been provided by the institutions under the Ministry in several areas such as environment, health, drinking water, food, housing, energy, specialty chemicals and petrochemicals, etc. Patent filing by institutions is also registering growth. Laboratories under the Council of Scientific and Industrial Research (CSIR) have been able to achieve 13.33% commercialization of their patents in comparison to the global average of 3%.

(b) & (c): While the state of Research and Development (R&D) in the country has been steadily improving, there is a wide variation in the level of competencies and the supporting research infrastructure among the institutions in the country. Hence, one occasionally hears concerns about the state of scientific research in the country from some academicians/organizations. As far as the institutions under Ministry of Science and Technology are concerned, the state of both basic and applied research is satisfactory. The Government has increased the budgetary allocations for Departments/Agencies under the Ministry of Science and Technology as shown below:

Financial Year Plan Budget Allocated (BE figures in Rs. crores)
Dept. of Science and Technology (DST) Dept. of Biotechnology (DBT) Council of Scientific and Industrial Research (CSIR)
2014-15 3125 1500 1980
2015-16 3401.5 1606.8 2241

(d) & (e): There is no such direction from the Government. However, in the Directors" Conference of CSIR Laboratories held at Dehradun in June 2015, it was resolved to attempt for self-financing of laboratories as the ultimate dream. This has been an ideal for the institutions under the Ministry of Science and Technology. In fact, institutions under the Ministry of Science and Technology which

specialize in basic research have been securing extramural competitive project funding from government and non-government sources. Those institutions which have applied research portfolio carry out technology development activities by raising resources through technology transfer, patent licensing, contract R&D activities, consultancy and high-end knowledge-based services.
****